

5 **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): An airport lighting aid simulation generator, comprising:

a means for receiving a plurality of navigation signals;

10 a means for retrieving airport information from a database as a function of one or more of the navigation signals;

a means for determining deviation from a glide path as a function of one or more of the navigation signals; and

a means for outputting a signal representative of the deviation from the glide path; and

15 a means for outputting a signal representative of a visual image for displaying the deviation.

Claim 2 (original): The generator of claim 1, further comprising a means for visually displaying the deviation from the glide path as a function of the deviation signal.

Claim 3 (original): The generator of claim 2 wherein the displaying means further comprises a
20 means for displaying the deviation as a pattern of color coded indicators.

Claim 4 (currently amended): The generator of claim 2 wherein the displaying means further comprises means for displaying information as to the-a degree of deviation from the glide path as a visual image relative to the pattern of color coded indicators.

Claim 5 (original): The generator of claim 1 wherein the means for determining deviation from a
25 glide path further comprises means for generating the glide path.

Claim 6 (original): The generator of claim 1 wherein the means for determining deviation from a glide path further comprises means for retrieving the glide path from the database.

Claim 7 (cancelled)

5 Claim 8 (original): A simulated airport lighting aid generator, comprising:
a processor structured to receive a plurality of navigation signals representative of a position and an altitude of a host aircraft;
a signal generator operated by the processor, the generator being structured to retrieve airport information from a database as a function of the position signal, compare the position and
10 altitude signals with a glide path, and output a signal representative of a degree of coincidence with the glide path as a function of the position and altitude signals; and
a display structured to receive the signal output by the signal generator and responsively output a visual indication of the degree of coincidence with the glide path.

Claim 9 (cancelled)

15 Claim 10 (cancelled)

Claim 11 (cancelled)

Claim 12 (currently amended): The generator of claim 11-8 wherein the illuminated indicators are positioned on the display to appear in positions consistent with ground-based airport lighting aids as seen on approach.

20 Claim 13 (cancelled)

Claim 14 (original): A glide path deviation generator, comprising:

a memory having a stored database of airport information accessible as a function of position, the airport information including runway location, elevation and direction information;
a processor coupled to receive position and elevation data and coupled to the memory for
25 retrieving the airport information as a function of the position, the processor being structured to operate a computer program for generating a glide path, comparing the position and elevation data to the glide path, and generating a signal representative of deviation of the position and elevation data from the glide path; and
a cockpit display being coupled to receive the deviation signal and being structured to
30 display a pattern of color coded indicators as a function of the deviation signal.

5 Claim 15 (original): The generator of claim 14 wherein operating a computer program for generating a glide path further comprises operating the computer program as a function of the airport information to compute a glide path.

Claim 16 (original): The generator of claim 14 wherein operating a computer program further comprises operating the computer program repeatedly for comparing updated position and

10 elevation data to the glide path, and generating a signal representative of deviation of the updated position and elevation data from the glide path.

Claim 17 (original): The generator of claim 14 wherein the pattern of indicators further comprises a pattern of indicators that substantially simulates an airport lighting aid.

Claim 18 (cancelled)

15 Claim 19 (currently amended): The generator of claim 18-17 wherein the airport lighting aid substantially simulated by the pattern of indicators further comprises a simulated Visual Approach Slope Indicator ~~further comprises having~~ a pointer portion that is programmed to simulate a vertical deviation scale.

Claim 20 (original): A computer program product for indicating deviation from a glide path,

20 wherein the computer program product comprises:

a computer-readable storage medium;

and computer-readable program code means embodied in the medium, the computer-readable program code means comprising:

first computer-readable program code means for determining a global position

25 from a received plurality of navigation data,

second computer-readable program code means for determining an altitude above ground level from one or more received navigation datum,

third computer-readable program code means for retrieving a plurality of airport information from a database of airport information as a function of the position determined

30 from the first computer-readable program code means,

5 fourth computer-readable program code means for determining correspondence between the position determined from the first computer-readable program code means combined with the altitude determined from the second computer-readable program code means and a glide path determined as a function of the airport information determined from the first computer-readable program code means, and

10 fifth computer-readable program code means for outputting a signal as a function of the correspondence determined from the fourth computer-readable program code means.

Claim 21 (original): The computer program product of claim 20 wherein the fourth computer-readable program code means for determining correspondence between the position combined with the altitude and the glide path further comprises means for computing the glide path as a function of the airport information.

Claim 22 (original): The computer program product of claim 20 wherein the fourth computer-readable program code means for determining correspondence of the position and altitude with the glide path further comprises computer-readable program code means for retrieving the glide path as one of the plurality of airport information retrieved from the database of airport information.

Claim 23 (original): The computer program product of claim 20, further comprising sixth computer-readable program code means for interpreting the signal output by the fifth computer-readable program code means as a pattern of color coded indicators on a cockpit display.

25 Claim 24 (original): The computer program product of claim 23 wherein the pattern of display indicators simulates a known airport lighting aid.

Claim 25 (original): The computer program product of claim 24 wherein the simulated airport lighting aid further comprises a substantially conformal presentation.

Claim 26 (cancelled)

Serial No. 10/052,716
Amdt. dated October 19, 2005
Reply to Office action of July 19, 2005

5 Claim 27 (original): The computer program product of claim 24, further comprising a seventh computer-readable program code means for interpreting the signal output by the fifth computer-readable program code means as a pointer indicator for simulating a vertical deviation scale on the cockpit display.

Claim 28 (original): A method for using an electronic circuit to compare a signal conveying
10 navigation data with a predetermined glide path, the method comprising:
receiving a plurality of navigation signals;
retrieving airport information from a database as a function of one or more of the
navigation signals;
determining deviation from a glide path as a function of one or more of the navigation
15 signals and one or more of the airport information;
and outputting a signal representative of the deviation from the glide path.

Claim 29 (original): The method of claim 28, further comprising visually displaying the deviation
from the glide path as a function of the deviation signal.

Claim 30 (currently amended): The method of claim 29 wherein displaying the deviation further
20 comprises displaying an airport image as a function of the airport information retrieved from the
database; and displaying the deviation as a substantially conformal presentation relative to the
airport image.

Claim 31 (original): The method of claim 29 wherein displaying the deviation further comprises
displaying color coded information as to a degree of deviation.

25 Claim 32 (original): The method of claim 28 wherein determining the deviation from a glide path
further comprises computing the glide path as a function of one or more of the airport
information.

Claim 33 (original): The method of claim 28 wherein determining the deviation from a glide path
further comprises retrieving the glide path from the database.

30 Claim 34 (original): The method of claim 28, further comprising updating the deviation over time.

Serial No. 10/052,716
Amdt. dated October 19, 2005
Reply to Office action of July 19, 2005

5 Claim 35 (original): The method of claim 34 wherein updating the deviation over time further comprises repeating the determining of the deviation from the glide path at predetermined intervals.

Claim 36 (new): The method of claim 31 wherein displaying color coded information as to a degree of deviation further comprises displaying an illuminated indicator indicating the degree of 10 deviation from the glide path positioned relative to a pattern of illuminated indicators simulating a known airport lighting aid.

Claim 37 (new): The generator of claim 8 wherein the display further comprises:
a pattern of illuminated indicators simulating a known airport lighting aid, and
an illuminated degree of deviation indicator indicating a degree of deviation from 15 coincidence with the glide path, the illuminated degree of deviation indicator being positioned relative to the pattern of illuminated indicators simulating a known airport lighting aid.

Claim 38 (new): The generator of claim 8 wherein the signal generator is further structured to output signals representative of a runway centerline and a lateral deviation from the runway centerline; and

20 the display is further structured to responsively output a visual indication of the runway centerline and the lateral deviation from the runway centerline.

Claim 39 (new): The generator of claim 8 wherein the signal generator is further structured to output signals representative of a lateral deviation scale relative to the runway; and
the display is further structured to responsively output a visual indication of the lateral 25 deviation scale.

Claim 40 (new): The generator of claim 8 wherein the signal generator is further structured to output signals representative of horizontal and longitudinal perspective line segments in positions relative to ground as a function of the airport information and the position and altitude of the host aircraft; and

5 the display is further structured to responsively output a visual indication of the horizontal and longitudinal perspective line segments in positions constructed to appear conformal to a flat surface on the ground.

Claim 41 (new): The generator of claim 8 wherein the signal generator is further structured to output signals representative of a path to a current waypoint and a next waypoint; and

10 the display is further structured to responsively output a visual indication of the path to the current and next waypoints.